

Claims

1. An execution device for executing an application program created in an object-oriented language, the application program including one or more classes that each have one or more methods, and confidentiality information that expresses whether or not confidentiality is necessary,

the execution device comprising:

an encryption determination unit operable to determine whether or not encryption is necessary, with reference to the confidentiality information; and

an object recording unit operable to, when the method is to be executed, record, in a memory, an object including data that the method manipulates,

wherein, when the encryption determination unit determines that encryption is necessary, the object recording unit records the object with the data encrypted.

2. The execution device of Claim 1, wherein

the confidentiality information further includes information showing a level of confidentiality,

the execution device further comprises an encryption method determination unit operable to, with reference to the confidentiality information, determine an encryption method, and

when the encryption determination unit judges that encryption is necessary, the object recording unit records the object with the data encrypted according to the determined encryption method.

3. The execution device of Claim 1, wherein
when overwriting the data included in the object using other
data, if the data included in the object is encrypted, the other
data is recorded encrypted.

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4. The execution device of Claim 3, wherein
the object recorded in the memory includes information showing
whether or not the data in the object is encrypted, and
when the information shows that data in the object is encrypted,
10 the data is recorded encrypted.

5. The execution device of Claim 1, further comprising a data
judgment unit operable to judge whether or not the data is data necessary
for specifying an address location of other data, wherein
15 when the data judgment unit judges that the data is data necessary
for specifying an address location of other data, encryption is
suppressed.

6. An execution device for executing a program,
20 the program including data and confidentiality information
showing whether or not confidentiality is necessary,
the execution device comprising:
an encryption determination unit operable to judge whether
or not encryption is necessary, with reference to the confidentiality
25 information; and

a load unit operable to load the data to a main memory when
an executable program is executed,

wherein, when the encryption determination unit judges that

encryption is necessary, the load unit encrypts the data and loads the encrypted data.